

Example 1BPTI-Derived Binding Protein for HHMb; Displayed by M135 Phage

Presented below is a hypothetical example of a protocol for developing a new binding molecule derived from BPTI with affinity for horse heart myoglobin 10 (HHMb) using the common E. coli bacteriophage M13 as genetic package. It will be understood that some further optimization, in accordance with the teachings herein, may be necessary to obtain the desired results. Possible modifications in the preferred method are 15 discussed immediately following various steps of the hypothetical example.

By hypothesis, we set the following technical capabilities:

20

y_{DQ} 500 ng/synthesis of ssDNA 100 bases long,
10 ug/synthesis of ssDNA 60 bases long,
1 mg/synthesis of ssDNA 20 bases long.

25

M_{DNA} 100 bases

y_{pl} 1 mg/l

30

L_{ef} 0.1 % for blunt-blunt,
4 % for sticky-blunt,
11 % for sticky-sticky.

M_{ntv} 5×10^8

35